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Supplements Deliver Ashwagandha's Benefits

As consumers seek support for stress management, physical fitness, supplements with ashwagandha offer convenience in dosing, delivery. • CASE Study

• CASE STUDY

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by Elizabeth Srejic

The market for dietary supplements containing ashwagandha (*Withania somnifera*) an Ayurvedic herb used widely since ancient times for an array of therapeutic benefits¹—is expanding around the globe. Product marketers and formulators are looking at this botanical as a valuable addition to their product portfolio, presuming the ingredient they choose delivers on efficacy and quality. According to some producers, having a positive experience in bringing ashwagandha products to market may be as easy as selecting a good supplier.

Ashwagandha, which means "odor of the horse" in Sanskrit, is so termed for its aroma, which some say is redolent of sweaty equines.² It is also said to confer the strength of the industrious animal. In Ayurveda, a well-established, ancient system of alternative medicine conceived in India,³ ashwagandha—an unassuming shrub that grows prolifically across the Indian subcontinent—is prized as an elixir that produces multiple health benefits^{4,5} without adverse effects even after prolonged administration,^{3,6} and works holistically within the body to increase health and longevity.² Ashwagandha is also considered an adaptogen, a nontoxic agent that modulates stress by homeostatically correcting imbalances in the neuroendocrine and immune systems, thereby increasing an organism's ability to adapt and survive.⁷

Ashwagandha's Rising Popularity

Ashwagandha products are progressively appearing in the natural products market for many compelling reasons, according to leading supplement companies. Developing an ashwagandha product could be an excellent choice as long as manufacturers take a handful of caveats into consideration.

Jacqueline Jacques, N.D., FTOS, vice president, research and development (R&D) at Thorne Research in Dover, Idaho, whose company formulates and markets ashwagandha products for physicians, veterinarians and recently consumers, said increasing consumer interest in Ayurveda is a key reason ashwagandha products are becoming more

common. "Ayurvedic products are absolutely gaining in popularity in the United States," she said. "Even if consumers don't recognize an ingredient as Ayurvedic, the botanicals coming out of that tradition have gained enormous popularity, and ingredients coming out of India have shown themselves as a class to meet higher quality standards than



ingredients coming out of other parts of the world. We are now spending less time explaining to people what ashwagandha is—that's my best litmus test for ingredient familiarity. We are less often answering the question, 'What is that thing?'"



Greg Loukas, president and founder of BrainForza in Mountlake Terrace, Washington, whose company currently offers encapsulated ashwagandha formulated with other ingredients to improve stress, memory and mood, and is currently developing additional ashwagandha-containing products, added that another factor in the increasing demand for ashwagandha may be rising consumer education: "More consumers are being informed of the benefits of ashwagandha through educational programs devoted to Ayurveda, publication of credible information and even public figures speaking to its benefits."

Jacques concurred. "Consumer education is definitely a key market driver," she said. "Any time we see it happening in the retail space, it stimulates the market. The media and social media are ways to get the

word out. I find that the top way that consumers get educated is through the news in particular, news that can get picked up and shared."

Beyond the growing popularity of Ayurvedic products and widespread consumer education, another reason for the rise of ashwagandha may be rising demand for stress-lowering therapies, according to Anthony Thomas, Ph.D., science director at Jarrow Formulas in Santa Monica, California, whose company offers KSM-66[®] Ashwagandha (from Ixoreal Biomed) as an encapsulated stand-alone product and in a tableted Adrenal Optimizer product formulated to support adrenal health.

"The key market driver is growing recognition of the [adaptogenic] benefits of ashwagandha, specifically as they apply to modern lifestyles often characterized by high stress, mental and physical fatigue, and restlessness," Thomas said.

Jacques agreed that ashwagandha's ability to quash stress is an important reason the ingredient is garnering increased interest. "Of the three products with KSM-66 that we offer, the one that has outshone the others is the one marketed as an adaptogen for stress management—one of the top-selling products in our portfolio," she said. "Stress management is an area where consumers seem to come to us for products rather than us coming to them."

Selecting a reputable

supplier that offers a premium, high-quality, reliable ashwagandha ingredient that meets high standards for purity and potency and is backed by clinical research is the other important part the picture.

Sourcing Quality Ingredients

Recognizing that the market for ashwagandha products is becoming increasingly favorable represents only half the battle, however. Selecting a reputable supplier that offers a premium, high-quality, reliable ashwagandha ingredient that meets high standards for purity and potency and is backed by clinical research is the other important part the picture. **Key considerations** in selecting an ashwagandha supplier are 'quality, quality and quality'—quality is a big deal.

-Jacqueline Jacques, N.D., FTOS, vice president R&D, Thorne Research



"Key considerations in selecting an ashwagandha supplier are 'quality, quality and quality'—quality is a big deal," said Jacques. "Currently, we have three ashwagandha products in our portfolio—an adaptogenic product, a thyroid health product and a geriatric veterinary health product—introduced in 1998, 1998 and 2008, respectively, and we are considering adding a targeted stand-alone sports nutrition ashwagandha product. So we are not new to formulating with ashwagandha. However, we are relatively new to KSM-66, which we began using because we found that ashwagandha ingredients from other suppliers weren't as reliable. Our organization has a very strong reputation for quality and we were experiencing increasing rates of failure for our ashwagandha products. We went through an ashwagandha crisis—we went through six different suppliers, including major brands—and their ingredients all failed. We thought we had exhausted all potential suppliers and were ready to discontinue the ingredient. I finally called our top reference laboratory that tests ingredients for purity and potency and asked, 'Who passes?' And that is how we were introduced to KSM-66 and subsequently wholesale replaced the ashwagandha in our products with it.

"A good supplier should be able to tell us that their product is clean, or free of residual solvents and heavy metals, and contains the claimed percentage of actives; we look at a huge range of things," she continued. "This is particularly important for manufacturers with high quality standards and tight, controlled specifications, who often test for things that other companies don't test for. The bottom line is that, for us, if something doesn't meet our standards for purity and potency, we'll reject it flat out. We also appreciate working with vendors who have made a big investment in their ingredient; one of the things I absolutely love about KSM-66 is that lxoreal has been so dedicated in investing in research for their product. Not only were they able to provide us with a high-quality product, but they have substantiation to back it up. A good product is one that comes with research, especially on specific claims—that doesn't require us to dig for substantiation."

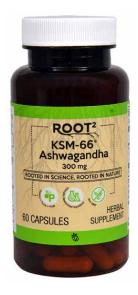
Loukas agreed selecting the right supplier with a high-quality ingredient is of utmost importance when bringing an ashwagandha product to market: "Whenever possible, I believe that an organic ingredient is better than a non-organic ingredient. It is also important to try to preserve the beneficial properties of whole herbal ingredients when they are put into extracted form. And another key quality consideration with ashwagandha extracts is whether withanolide A, a potentially toxic compound that occurs naturally in the root, is purposefully removed. Withanolide A occurs in the root in relatively small amounts—but if you're consuming a lot of it over time, there's potential

for it to do some degree of harm; as such, I like to take the extra step to make sure that withanolide A is excluded from the ashwagandha extracts we use."

Loukas concurred that a supplier's dedication to quality and innovation by investing heavily in R&D is important. "A manufacturer should consider how many high-quality clinical trials a supplier produces," he said. "These studies should demonstrate that an ingredient does what it says it does. In the case of lxoreal, investing in research and development yielded a novel production process which, unlike the alcohol extraction method commonly used for ashwagandha ingredients, is relatively cleaner and helps to

keep the herb's DNA intact. And Ixoreal has completed 15 or 16 proprietary studies now, with several more in progress—having that many studies is practically unheard of. Normally suppliers may conduct one or two proprietary studies on a specific ingredient that may or may not be trustworthy when they need to turn out multiple well-designed, well-conducted studies that examine multiple variables."

The depth of research on KSM-66 also convinced Terry Papadopoulos, MSH, RD, senior manager of product development, corporate brands at Vitacost in Boca Raton, Florida, to incorporate KSM-66 into its ROOT² product line. "One of the reasons that KSM-66 is the best ashwagandha ingredient on the market is that it is backed by a substantial amount of clinical research," he said. "We've heavily utilized proprietary studies conducted by Ixoreal and its partners to validate the ingredient's efficacy in our marketing efforts to consumers."



Differentiation

Once a company decides to bring an ashwagandha product to market and selects its supplier, the question of how to innovatively distinguish its product against similar offerings on the market arises.

One route to innovation is the way a company markets its ashwagandha and to which target demographic. Jacques said that unlike many companies that market ashwagandha directly to consumers, Thorne has an extended history of selling directly to health care professionals, although the company gradually began marketing to consumers after veering into the sports nutrition realm. Furthermore, she said Thorne is one of the few ashwagandha manufacturers that transcends the human market to offer geriatric veterinary health products formulated with the herb.

"Initially our go-to-market strategy was health care professional-focused only—100 percent direct to doctor—and our products were brought to market through our physician network and direct sales representatives who regularly called on doctors' offices. However, in the past five years, that demographic has remarkably changed. Our marketing has shifted direct-to-consumer by 50 percent, with a newer side of our company that is consumer facing, and our sales are now almost evenly divided between health care practitioners and consumers. This shift occurred primarily because we started a sports nutrition side of our business, which we found was extremely difficult to market exclusively through health professionals and required broader marketing channels."

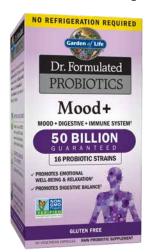
In contrast, Vitacost sells direct-to-consumer via its website. "Since the benefits of ashwagandha are so vast and can benefit many different types of people, we wanted our marketing to allow a range of consumers to be able utilize the product," Papadopoulos said. "For example, KSM-66 Ashwagandha can be used by hard-at-work career professionals who may benefit from reducing stress while improving their mood and well-being, athletes who are looking to improve their strength and physical performance, and by individuals looking to support healthy testosterone levels. It's for all kinds of people and clinical research supports these diverse benefits. And we formulated our ashwagandha as a pure, stand-alone ingredient as studied in clinical trials to permit people to get those benefits as they were documented."

Loukas agreed ashwagandha can be successfully marketed to multiple demographics. "Our go-to-market strategy is pretty simple," he said. "Our marketing demographic incudes all ages. Generally, I feel what I put out reflects me and my taste one way or another, and I am 32 years old. However, we have and appreciate customers of all ages. Our goal is ultimately to make the best products, hands down, for excellent value, and I believe that speaks to everyone. I only make products that I will take myself. I make whatever I know is proven in science or is the best ingredient that I can find, and then I share that with the world. There was no specific strategy—I just experimented with ashwagandha, searched to find the best supplier of ashwagandha, which is Ixoreal, which makes the best ashwagandha ingredient out there."

In addition, ashwagandha can be delivered on its own or integrated into formulations with synergistic ingredients. Both options have their advocates.

"Historically, Garden of Life has not formulated stand-alone ashwagandha products," said Jeffrey Brahms, general counsel and vice president of science and international at Garden of Life in Palm Beach Gardens, Florida. "Instead, we use the ingredient for its clinically studied value in combination with other ingredients in our formulas. We start with Ayurvedic traditional medicinal uses for ashwagandha as a guide for formulating with this ingredient. But we also study emerging





science—including the multiple human clinical studies performed by our suppliers—to inform

our uses and the dosing. Our consumers recognize that ashwagandha is very versatile and beneficial, and it always adds value to our formulations. We use KSM-66 organic ashwagandha in several formulas, including our ... weight loss protein, Raw Organic Fit, and our novel doctor-formulated MOOD Probiotic 50 Bil, and we currently have future ashwagandha products in development."

However, combination products aren't the only game in town. "Innovation in an ashwagandha product can happen through how the ingredient is combined with other synergistic ingredients to provide a comprehensive suite of benefits," Papadopoulos agreed, "but it can also Ashwagandha is actually one of the easier ingredients to formulate with, chiefly because it doesn't really have any off-notes or bitterness. – Terry Papadopoulos,

MSH, RD, senior manager product development, corporate brands, Vitacost



be achieved by providing just ashwagandha as a stand-alone product by itself without any other ingredients. When we conceptualized bringing our new ashwagandha products to market, we wanted to provide the KSM-66 ingredient in its purest form-its stand-alone form—as it was studied in the clinical research. When you take a product with multiple ingredients, it's difficult to determine which ingredient is providing the benefits you're experiencing. As such, taking finished products with multiple ingredients can remove consumers' ability to control and tweak their supplement regimens. Our go-to-market strategy was along the lines of introducing a product with doses that matched the research and wasn't combined with other ingredients. We wanted to provide the isolated, stand-alone ingredient that would allow consumers access to the ingredient as it was studied in clinical research where it was administered alone rather than in combination with other ingredients. We wanted to offer a guality source of ashwagandha extract in its pure form, by itself, so people could use it as they saw fit for their personal regimens. And if they elected to take other ingredients with it, they could take them separately. Providing ashwagandha as a stand-alone product also supported our go-to-market strategy because it allowed us to provide an ashwagandha product at the best possible price, which is something that Vitacost strives to do."

Formulation Considerations

Finally, an important part of bringing an ashwagandha product to market is choosing a delivery method and dealing with any potential formulation challenges.

"Ashwagandha is actually one of the easier ingredients to formulate with, chiefly because it doesn't really have any off-notes or bitterness, and it's delivered in a relatively small dose," Papadopoulos said. "Especialin powders and capsules, it is particularly easy to formulate. In addition, after being granted regulatory approval, it has also begun to appear in functional foods and beverages in smaller doses."

Jacques agreed ashwagandha is a relatively easy ingredient to formulate with. "We offer powders that are primarily encapsulated but also free flowing," she said. "We also have a couple of tablets and a couple of softgels, but they are a relatively small part of our 400 SKUs. We haven't really experienced formulation challenges such as unpleasant flavors or shelf-life issues. Our primary formulation challenge was really finding an ingredient that met our quality standards. KSM-66 powder is not difficult to work with."

This is particularly important when looking at delivering an efficacious dose, Loukas concluded. "One of the biggest problems in the industry is under-dosing," he said.

"We use KSM-66 in both of our advanced formulas at the minimum of 600 mg/dose to a maximum of 800 mg/dose, and we plan on taking it up to 1,000 mg/dose, manufactured to organic specifications, and we are putting in two to three more formulas we are developing. I love it; I use it every day, myself. It is my favorite ingredient."

With a growing base of interested consumers, a wide breadth of scientific support and increasing opportunities for supplement delivery options, expect ashwagandha to continue its market-leading position in the supplement space.

Elizabeth Srejic is a Phoenix-based freelance writer.

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